## WITH THE FARMERS

By Prof. W. F. MASSEY



loes not evaporate,

age in the soil, it must go through various changes by the action of the soil bacteria before plants can use it. One form of bacterium breaks down the organic matter and releases ammonia. Another form feeds on ammonia and makes nitrites in the soil. A third form uses the nitrites and makes nitric sed up at once, and the organic matied up at once, and the organic matir, coming in more slowly, carries on
ae later growth. Phosphoric acid and
otash placed in the soil stay right
otash placed in the soil stay right
ing now might induce an untinew growth at a time when the
next placed growth of the season should used up at once, and the organic matill remain till used. Their effect can will remain the used. Their enect can be seen in crops for three or four years when liberally applied. Nitrogen does not evaporate unless it is changed to volatile form of ammonia like the arbonate. This will evaporate rapidly. Hence we should never mix carbonate f lime with organic nitrogen or ma-

Peach Trees Falling. "Will you, if possible, tell me what the matter with my peach trees, and what to do for them? I planted them three years ago. They bore last year and are bearing now. Two tree's have begun to turn yellow and die, and the fruit is rotting. It seems that the trees will die. They have been such a disease as the yellows, and is there any remedy for it?" Yes, there certainly is a very destructive disease alled the yellows, and there is no emety for it. The only thing that can be done is to dig up and burn the an be done is to dig up and burn the rees to prevent its spreading. But am not sure that your trees have he yellows. The mere turning yellow on it was not a certain indice on it. It may result from lack of plant

pounds of acid phosphate and twenty pounds of muriate of potash an acre.

After a time it will be found that. pounds of muriate of potash an acre. After a time it will be found that the peas in the corn grow too rank to disk down, and then they should be cut for hay. Or, instead of two crops cut for hay. Or, instead of two crops of oats you might sow wheat after the first pea crop, and sow red clover on it in the spring, and let this clover be mown one season, and the following winter get out your manure on it and turn for corn again. This will give you the same number of years in the rotation, and but one small grain crop. Rye will answer as a winter cover, where it is too late to sow the crimson clover, but the clover is many

Doubtless they are the black aphis or plant lice. Spray the trees with a strong decection made by steeping to bacco stems in boiling water and let-

ting it cool before using.

I have some land, fairly fertile, but it bakes hard after a rain. I sowed it once in rye and then worked it in peanuts, but it turns up in cakes. How

organic matter or humus. Getting it. I always get plenty of stalk, but vegetable decay into it is the only want more and larger ears." I would way to mellow a stiff soil. Grow peas not, under these conditions, apply any and let them mature and turn the whole growth under, and then sow crimson clover and manure this in winter and damaging to the peas, while helping turn under for corn in spring and at clover and manure this in white the constalks larger. Phosturn under for corn in spring, and at to make the cornstalks larger. Phosonce you will find some difference. Sow phoric acid and potash are the grainpeas in the corn and disk them down as I have suggested above, and sow winter grain on the land. Follow grain trate of soda the peas would fail to get nitrogen to any extent from the air, while with the application of 300 stocked with decaying vegetation and it will be changed entirely.

Cowpens for Hay. What varieties of peas make the best vines for hay? I have been using the Whippoorwill, but they do not vine enough." The heaviest hay-making cowpea is the one that has long been called the Unknown in the South, and is now often called the Wonderful. It

Nitrate of soda; runs fifteen or twenty feet, but its but absorbs water rapidly and sinks and Clay, which tangle from the start. But the Wonderful is a very late pea, into the soil. Plant roots take nitroit is not so hard to mow as the Black gen only when it Virginia I would prefer to use the is a nitrate, and hence the nitrate of soda is ready to earlier than the Wonderful, and makes feed the roc at a heavy crop of hay. From the way put it grows and tangles it is narder to ik- save than the Whippoorwill, but it va-you run a tedder right after the mower it will clear the track and help the mower while helping wilt the hay. Never mow peas till the pods turn

yellow. Sowing Rye in Orchard.

"I want to sow my orchard in rye or something green for the chickens. Will it damage the trees to plow now?" in the soil, either lime or potash or soda, and a nitrate is formed that plants can use. It is evident then that It is always best to use left with the soil. ants can use. It is evident then that A peach orchard should have been is always best to use both nitrate kept well cultivated till July, and then, soda and some of the organic forms, when the growth for the season is at carry nitrogen, as the nitrate is complete, it will do no harm to sow complete, it will do no harm to sow rye or clover in it. If the orchard is apples, and has not been cultivated in the early part of the season, the plowthere till used by plants. Nitrates not used will wash out of the soil, but the phosphoric acid and potash do not, and allowed to mature. Of the proper allowed to mature. Of the proper treatment of apple and other orchards, I will treat fully later.

Subsoiling.
"When is the best time to subsoil lang? My land is gravelly on top, with a heavy red clay subsoil." Where subsoiling will do good, the best time to do it is in the fall. Subsoiling is very valuable on bill lands that are inclined to wash, but on flat clay soil, where the drainage is needed more than anything else, subsoiling will be of little advantage, as the soil will settle right back again. In fact, on level lands in general I doubt the profitableness of subsoiling. Sandy soils that are inclined to leach will be damaged by subsoiling. In such soils we general a good eight-inch breaking McDuffle, both of Columbia University

"Will alfalfa grow successfully here on fairly good upland? Will it be nec-essary to lime or inoculate? I raised from the soil or from drought or from the soil or from drought or from the roots being damaged by the borers. In the true yellows the first indication is the putting out of bunches of thin, wiry shoots, not the strong natural growth. Then the fruit grows spotted and ripens prematurely, and think more of it than any crop on the farm? There is no doubt of the success of alfalfa on reasonably good soil that is well drained. Lime seems established that is well drained and follow up the damaged bark till you find the borer that is eating the tree. If there are no borers then it may be lack of plant food, and you should give the trees an application of a high-grade fertilizer spread out is also desirable to inoculate? I raised a great deal of alfalfa in Northwest Missouri, where I formerly lived, and think more of it than any crop on the farm? There is no doubt of the success of the elementary school around six large units—namely, foods, clothing, shelter, utensils, the development of the success of ment of books and magazines and tools, machines and transportation. It is intended to show that the progress of civilization has been due largely to man't transformation of raw materials. Of which the above articles are made, to finished products of higher values, just as much as through the study of literature, art, mathematics or the sciences. The student first studies the processes of manufacture and developwhere the bore that is eating the tree. If there are no borers then it may be hack or plant food, and you should give the trees an application or should give the trees an application or where the limbs drip and not you should give the trees an application or where the limbs drip and not you should give the trees an application or where the limbs drip and not you should give the trees an application or where the limbs drip and not you around the stem. This may be late the limbs drip and not you around the stem. This may help them.

They are the limbs drip and not you where the limbs drip and not you should be considered as the created and the stem. The same help them had been and the stem in the clover for a few years, or peas, and then trye as a winter cover grop." If you mean that the freignt meaning is 13 cents per hundred worksh, it will certainly not pay. In the stem is 13 cents per hundred worksh, it will certainly not pay. In the stem is 12 cents per hundred worksh, it will certainly not pay. In the stem is 12.50 per ton for it delivered worksh, it will certainly not pay. In the stem is 12.50 per ton for it delivered worksh, it will certainly not pay. In the stem is a second of the stem is two and the stem is a second of the stem is a second of the stem is two and not pay at this price. What you need is a regular to play a short rotation for the improvement of worksh, it was an account to the farm it would not pay at this price. What you need is a regular point of the stem is the price what you have it as a regular point of the stem is a second of the stem is a second of the stem is the price. What you need is a regular point of the stem is the price what you have a regular point of the stem is the price what you have a regular point of the stem is the price what you have a regular point of the stem is the price. The stem is the price what you have a regular point of the stem is the price what you have a regular point of the stem is the price what you have a regular point of the price what you have a regu

Aphls on Cherry Trees.

"The leaves on my cherry trees are covered with little black bugs. What is the trouble?"

Doubtless they are the black aphls

wheat for hogs, as I have had several letters asking this same question. Side Dressing for Corn.
"Please let me know what you concan I make this soil more mellow?" sider the best side dressing for corn
The land bakes hard because it lacks that is laid by with peas sown among sider the best side dressing for corn making materials, and they will help both the peas and the corn. With nitrate of soda the peas would fail to pounds of muriate of potash, they will go to work getting the nitrogen for you and for the corn too.

> Children Cry FOR FLETCHER'S CASTORIA

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# **BIG REGISTRATION**

Many Richmond Teachers Take Advantage of Special Summer Course.

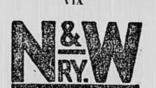
The Richmond City Normal School which has been in session for the past two weeks in the John Marshall High School Building, has reached a registration of 250 students. Over half of this number are teachers of the Richmond city system

Much interest on the part of the city teachers is being shown in the industrial arts department, under Professor Benjamin H. Van Oot and Miss Pearle New York City. This course is intended to include and replace much of the work now being done in the elenientary schools under the names of "Manual Training," "Domestic Science." "Sewing" and Constructive Drawing and Design."

The course is organized for the first

The course is so organized that the work of the first six years shall be alike for all children, regardless of race, sex or future occupation. It is cultural and preparatory to the widest possible range, leading at the end of the sixth year to a differentiated course. Northern markets, and the Spanish to eat at home, and if you go over into Northampton I have no doubt that you could find the potato at the proper the beginning of the secondary school. the sixth year to a differentiated course for boys and girls. It provides for specialization in any chosen vocation at

# 3-Day Excursion where it is too late to sow the buckwheat, and soy beans will be worth still more, because of the high feeding value of the beans. Buckwheat is a good crop to sow in Au-



Special fast train will leave Rich-

July 18th

# \$2 Lynchburg \$2 Roanoke \$3

the special train will leave Roanoke 1:30 P. M., Lynchburg 3 P. M. Stops will be made in both directions at Bedford, Montvale and Blue Ridge.

# TO WITCH HAZEL

Ten Bottles, All of Them Empty, Found in Dead Man's Apartment.

INQUEST IS HELD

Telegraph Operator Drops Dead in Station at Danville.

[Special to The Times-Dispatch.] Danville, Va., July 13 .- Although no coroner's jury was impanelled to ascertain the exact cause of the death of Joseph M. Winder, who fell dead at the passenger depot last night, it is generally believed that his demise was due partially, at least, to his drinking quantity of witch-hazel. Ten pint bottles, all of them labeled "witchhazel," were discovered empty in the man's apartment in a private boarding house and another empty bottle was found beneath a desk at which he worked at a local newspaper office. Although he was here far nearly two weeks he was seen very little after the first week had passed. He complained then of being unable to sleep and of general nervousness, and finally he found himself unable to work altogether. His landlady declares that during Thursday, Friday and Saturday he was in a kind of a stupor. Yesterday so queer did he become that he was asked to move from the house in which he was staying, and he decided to return to Washington, which was said to be his home. He had just checked his suit case and purchased collapsed and died without saying a word, in the Southern baggage room. It is known that he was married and lived in Washington, but nothing was found to indicate his home address. \$10 in money was found upon his person and also several letters bear-ing Washington postmarks and signed

Odds and Ends From the Wire

Odds and Ends From the Wire

Of the supreme Court, which sits in September, and the sheriff says the bush of the letters. Inquiries made at Washington revealed that Winder has a married sister, Mrs. J. B. Fitzpatrick, living in New York, and she, it is understood, is making arrangements for the disposition of the body. It has also been learned that the dead man's father died about the winder was in the dead man's father died about the winder was in the dead man's father died about the winder was in the dead man's father died about the winder was in the dead man's father died about the winder was in the dead man's father died about the winder was in the dead man's father died about the winder was in the dead man's father died about the winder was in the died winder was in the died winder was a reason for asking the perfences as a Marconi wireless operant or that city, list mother is still allive, and lives in the worked here. Winder made a favorable impress, its continually with him, no matter is too the still man the perfence of the work of the Associated Press throughout the Southern States substituting concerns. During the few weeks preceding his death winder was different provided the work of the work o

Assured the Mayor that they would never inches such that they had never inches as the first was against their religious to the content. Black and a mapped. While will be a super forced on the content. Black and this wife who lives in Philament by his wife, who lives in Philament by his wife, who lives in Philament by his wife. We will be wi

street committee for the work it wisnes to undertake during the coming year, Julius Kautman, chairman of the finance committee, severed his connection with that committee on Tuesday night.

lieved to be particularly well fitted for the position he held, declared that he regretted it, but it was evident that he was not in harmony with the rest of that body.

## IDENTITY UNKNOWN

No One Has Recognized Victim of

solved by eyewitnesses of blame for the fatality will be arraigned in Po-



## Odds and Ends From the Wire

ARROT CALLS JUDGE PAPA.

Thereby indirectly Extablisher Owners, the stand of the companies became in the square directly north of the Capital Chicago, July 13.—"Hello, paper had been doing what is known as the baby had part of cheeding the standard of the companies of the companies in this city. Philadelphian Chicago Avenue Cutting the results of the companies of this city. Philadelphian Chicago Avenue to the cutting the results of the companies of this city. Philadelphian Chicago Avenue to the companies of the

Following a debate in the regular meeting of the Common Council held here this week, as to whether \$40,000 or \$35,000 should be allowed the city street committee for the work it wishes to undertake during the coming year, Julius Kaufman, chairman of the finance committee, severed his connection with that committee on Tuesday night.

Mr. Kaufman, who is generally believed to be particularly well fitted for the position he held, declared that he regretted it, but it was evident that he was not in harmony with the rest of that body.

SOLDERED LEAKING GASOLENE.

Repairman Subsequently Is Blown Through Door; Shop Ruined.

Wilmington, Del. July 13.—William Jacobs was injured and the plant of the Delaware Auto Radiator Repair Company, \$18 Shipley Street, was damaged, when a tank filled with gasolene exploded while Jacobs was soldering a leak in it. Jacobs was blown through the door into the street and was burned about the arms, face, head and chest, all the hair being singed off his head. The roof of the building was lifted from its fastenings, the windows were demolished and the plant of the Delaware Auto Radiator Repair Company, \$18 Shipley Street, was damaged, when a tank filled with gasolene exploded while Jacobs was soldering a leak in it. Jacobs was blown through the door into the street and was burned about the arms, face, head and chest, all the hair being singed off his head. The roof of the building was lifted from its fastenings, the windows were demolished and the plant of the Delaware Auto Radiator Repair Company, \$18 Shipley Street, was damaged, when a tank filled with gasolene exploded while Jacobs was soldering a leak in it. Jacobs was blown through the door into the street and was burned about the arms, face, head and chest, all the hair being singed off his head. The roof of the building was lifted for the place, but the being singed off his head. The roof of the building was lifted for the place, but the being singed off his head. The roof of the building was lifted for the place and the plant of th Houses in the immediate vicinity of the plant were rocked on their founda-

REAL DRY SPOT IN MAINE.

No One Has Recognized Victim of Street Car Accident.

All efforts to discover the identity of the negro man wno was struck and instantly killed by an Oakwood and Main Street car of the Virginia Railway and Power Company Saturday night in West Cary Street failed yesterday. The body was viewed at Price's undertaking establishment by a number of persons, but none was able to recognize it. Coroner Taylor will hold an inquest into the accident at 10 o'clock this morning in the City itall, when another effort will be made to establish the man's identity.

MEAL DRY SPOT IN MAINE.

It's Bangor, Where Carlend of Whiskey Was Seized.

Bangor Me. July 12.—Not since 1877 has Bangor been so nearly "dry" as it is to-day. On Thursday Sheriff O'Connell and his deputies seized a carload of whiskey that had come all the way from Louisville, consigned to local saleonkeepers, and carted the contents, fifty-four packages of \$20 gallons, to the "rum room" in the basement of the courthouse. This is about the fittieth seizure that the sheriff has made since May 1, and he says he will seize every drop that he can lay his hands on.

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